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# NOTICE OF ALLOWANCE AND FEE(S) DUE

26291

7590

07/13/2004

MOSER, PATTERSON & SHERIDAN L.L.P. 595 SHREWSBURY AVE, STE 100 FIRST FLOOR SHREWSBURY, NJ 07702

EXAMINER
HUYNH, SON P

ART UNIT PAPER NUMBER

2611

DATE MAILED: 07/13/2004

24

1	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
٠	09/458,796	12/09/1999	DONALD F. GORDON	19880-000720	9295

TITLE OF INVENTION: APPARATUS AND METHOD FOR COMBINING REALTIME AND NON-REALTIME ENCODED CONTENT-

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665	\$0	\$665	10/13/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

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# PART B - FEE(S) TRANSMITTAL



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nonprovisional	YES	\$665		\$0	\$665	10/13/2004
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HUYNH	, SON P	2611		725-091000		
1. Change of correspondence CFR 1.363).	address or indication of "F	ee Address" (37	•	ting on the patent front page, li	•	<del></del>
☐ Change of corresponde	nce address (or Change of C	Correspondence	(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,			
Address form PTO/SB/122) attached.  "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.			
3. ASSIGNEE NAME AND	RESIDENCE DATA TO B	E PRINTED ON T	HE PATENT	(print or type)	······································	
PLEASE NOTE: Unless recordation as set forth in	an assignee is identified be 37 CFR 3.11. Completion	elow, no assignee of this form is NOT	data will appo F a substitute :	ear on the patent. If an assigr for filing an assignment.	nee is identified below, the d	ocument has been filed for
(A) NAME OF ASSIGNI	BE .	(В	) RESIDENC	E: (CITY and STATE OR CO	UNTRY)	
Please check the appropriate	assignee category or catego	ries (will not be pri	inted on the pa	atent); 🔾 individual 🔾 o	corporation or other private gr	oup entity
4a. The following fee(s) are	enclosed:	4b	. Payment of	Fee(s):		
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☐ Publication Fee (No small entity discount permitted)			☐ Payment by credit card. Form PTO-2038 is attached.			
☐ Advance Order - # of 0	Copies	<del></del>	☐ The Direct Deposit According	tor is hereby authorized by clount Number	harge the required fee(s), or enclose an extra c	credit any overpayment, to opy of this form).
5. Change in Entity Status  a. Applicant claims SM	(from status indicated above IALL ENTITY status. See 3	•	🗅 b. Applica	nt is not claiming SMALL EN	TITY status. See, e.g., 37 CFI	l 1.27(g)(2).
	iblication Fee (if required) v	vill not be accepted	from anyone	y) or to re-apply any previous other than the applicant; a reg		
(Authorized Signature)	ids of the Office States Pate	(Date)	onice.			
This collection of informatio	n is required by 37 CFR 1.3	11. The informatio	n is required t	to obtain or retain a benefit by lection is estimated to take 12	the public which is to file (and	by the USPTO to process)

submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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09/458,796	09/458,796 12/09/1999 DONALD F. GORDO		19880-000720	9295	
26291	7590 07/13/2004		EXAMINER		
,	TERSON & SHERIDA	HUYNH, SON P			
595 SHREWSBU FIRST FLOOR	JRY AVE, STE 100	ART UNIT	PAPER NUMBER		
SHREWSBURY	, NJ 07702		2611		
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DATE MAILED: 07/13/2004

# Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)			
A	09/458,796	GORDON ET AL.			
Notice of Allowability	Examiner	Art Unit			
	Son P Huynh	2611			
The MAILING DATE of this communication apper All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in a or other appropriate commur GHTS. This application is su	this application. If not included ication will be mailed in due course. THIS			
1. A This communication is responsive to pape No. 23 filed on 5		H 7/26/04			
2. The allowed claim(s) is/are <u>1-11, 13-18, 21-22 have been to the light of the li</u>	The state of the s				
3. The drawings filed on are accepted by the Examine	r.				
<ul> <li>4. Acknowledgment is made of a claim for foreign priority una   <ul> <li>a) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have</li> <li>2. Certified copies of the priority documents have</li> <li>3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul> </li> <li>Applicant has THREE MONTHS FROM THE "MAILING DATE"</li> </ul>	been received. been received in Application cuments have been received of this communication to file a	No in this national stage application from the			
noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.				
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>					
6. CORRECTED DRAWINGS ( as "replacement sheets") mus	st be submitted.				
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached					
1)  hereto or 2)  to Paper No./Mail Date					
(b) $\boxtimes$ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date $\underline{24}$ .					
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t					
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo- attached Examiner's comment regarding REQUIREMENT</li> </ol>					
Attachment(s)	5 DNeiber etter	Detect Applied (DTO 450)			
1. Notice of References Cited (PTO-892)	<u>-</u>	ormal Patent Application (PTO-152)			
<ol> <li>Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statements (PTO-1449 or PTO/SB/0</li> </ol>	6. ☐ Interview Sui Paper No./M 8). 7. ⊠ Examiner's A	finary (P10-413), fail Date mendment/Comment			
Paper No./Mail Date	_				
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. ☑ Examiners S	VIVEK SRIVASTAVA PRIMARY EXAMINER			

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# **DETAILED ACTION**

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorneys Steven M. Hertzberg (Reg. 41,834) and Eamon J. Wall (Reg. 39,414) on June 30, 2004 and July 2, 2004.

2. The application has been amended as follows:

In the claims:

1. (Currently amended) An apparatus for encoding realtime and non-realtime interactive program guide (IPG) content comprising <u>a realtime</u> video [content] <u>portion</u> and a <u>non-realtime</u> guide <u>graphics portion</u> [data], the apparatus comprising:

a non-realtime encoder configured to encode <u>the</u> non-realtime <u>guide graphics</u>

portion [content] into <u>a plurality of</u> encoded non-realtime <u>graphics</u> [content] slices;

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a realtime encoder configured to encode the realtime [content] <u>video portion</u> into encoded realtime [content] <u>video</u> slices;

means for assigning packet identifiers to the realtime video portion slices and the non-realtime guide graphics portion slices, wherein said assigning step assigns a different packet identifier to each guide graphics slice that is part of a different guide graphic, and assigns a common packet identifier to all common realtime video portion slices;

a remultiplexer configured to repacketize the encoded non-realtime [content] **guide graphics portion** slices and the encoded realtime **video portion** [content] slices into transport packets;

a slice combiner coupled to the realtime and non-realtime encoders and the remultiplexer, the slice combiner configured to combine slices of the encoded realtime video [content] **portion** with slices of the encoded non-realtime [video data content] **quide graphics portion** in a predetermined order; and

a re-timestamp unit coupled to the remultiplexer and configured to provide timestamps to be applied to the transport packets in order to synchronize the realtime <a href="video portion">video portion</a> and non-realtime [content] <a href="guide graphics portion">guide graphics portion</a> of said IPG.

- 2. (Previously presented) The apparatus of claim 1, where the apparatus is located within a head-end of a cable distribution system.
- 3. (Currently Amended) The apparatus of claim 1, further comprising:



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a clock unit configured to provide a clock signal to the re-timestamp unit and to generate a clock stream to be transmitted along with [the] <u>a</u> transport stream to a plurality of terminals.

4. (Currently Amended) The apparatus of claim 1, further comprising:

a rate control unit configured to determine an encoding rate for the non-realtime [content] **guide graphics portion** and to provide the determined encoding rate for the non-realtime [content] **guide graphics portion** to the non-realtime encoder.

- 5. (Currently Amended) The apparatus of claim 4, where encoding rate for the non-realtime [content] **<u>guide graphics portion</u>** is determined based at least in part on an output rate of [the] **a** transport stream.
- 6. (Currently Amended) The apparatus of claim 4, where the rate control unit determines an encoding rate for the realtime [content] <u>video portion</u> based at least in part on an output rate of [the] <u>a</u> transport stream.
- 7. (Currently Amended) The apparatus of claim 1, wherein the realtime [content] <u>video</u> <u>portion</u> includes video and audio contents.
- 8. (Currently Amended) The apparatus of claim 1, wherein the non-realtime [content] **guide graphics portion** includes guide data.



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9. (Previously Amended) The apparatus of claim 7, wherein the realtime encoder includes

a video encoder configured to encode the realtime video content, and an audio encoder configured to encode the realtime audio content.

10. (Currently Amended) The apparatus of claim 5, wherein the encoding rate for the non-realtime [content] **guide graphics portion** is further determined based on a maximum bit rate anticipated for the encoded realtime video [content] **portion**.

11. (Previously presented) The apparatus of claim 1, wherein the timestamps provided by the re-timestamps unit replace timestamps generated by the realtime and non-realtime encoders.

12. Canceled.

13. (Previously presented) The apparatus of claim 1, wherein realtime and non-realtime contents intended to be displayed in a single frame are re-timestamped by the retimestamp unit for synchronization such that the contents are decoded and presented in the same frame.

Cont.

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14. (Currently Amended) [A method for encoding realtime and non-realtime content of an interactive program guide (IPG), comprising:

encoding realtime content to generate encoded realtime content slices;

encoding non-realtime content to generate encoded non-realtime content slices; combining slices of encoded realtime with slices of encoded non-realtime content, wherein the encoded realtime content and non-realtime content are combined in a

predetermined order;

repacketizing the combined encoded realtime content slices and the encoded non-realtime content slices into transport packets, wherein the repacketizing is based on the combined slices of encoded realtime and non-realtime contents; and re-timestamping the transport packets with new timestamps in order to synchronize the realtime and non-realtime content of the IPG].

Apparatus for an interactive program guide (IPG) having a realtime video portion and a non-realtime guide graphics portion, comprising:

means for encoding the realtime video portion by dividing the video portion into slices and encoding each video portion slice;

means for encoding the non-realtime guide graphics portion to produce a

plurality of encoded non-realtime graphics slices by dividing the non-realtime

guide graphics portion into slices and encoding each guide graphic portion slice;

means for assigning packet identifiers to the realtime video portion slices

and the non-realtime guide graphics portion slices, wherein said assigning step

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assigns a different packet identifier to each guide graphics slice that is part of a different guide graphic, and assigns a common packet identifier to all common realtime video portion slices;

means for combining encoded realtime video portion slices with encoded non-realtime guide graphics portion slices, wherein the encoded realtime video portion slices and non-realtime guide graphics portion slices are combined in a predetermined order;

means for repacketizing the combined encoded realtime video portion slices and the encoded non-realtime guide graphics portion slices into transport packets;

means for re-timestamping the transport packets with new timestamps in order to synchronize the realtime video portion and non-realtime guide graphics portion of the IPG; and

means for placing the encoded realtime video portion slices and nonrealtime guide graphics portion slices into a bitstream for transmission.

- 15. (Currently Amended) The method of claim [14] <u>22</u>, further comprising: generating the new timestamps based on a common clock signal.
- 16. (Currently Amended) The method of claim [14] <u>22</u>, further comprising:

  controlling a bit rate for the encoded non-realtime [content] <u>guide graphics</u>

  portion based in part on a bit rate for [the] <u>a</u> transport stream.



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17. (Currently Amended) The method of claim 16, wherein the bit rate for the encoded non-realtime [content] **guide graphics portion** is further based on a maximum bit rate anticipated for the encoded realtime [content] **video portion**.

18. (Currently Amended) The method of claim 16, further comprising:

allocating the bit rate for the encoded non-realtime [content] <u>guide graphics</u>

portion among a plurality of <u>guide graphics</u> pages of the non-realtime [content] <u>guide</u>

graphics portion.

19. Canceled.

20. Canceled.

- 21. (Currently presented) The apparatus of claim 1, wherein said non-realtime [content] **quide graphics portion** comprises guide page information and said realtime [content] **video portion** comprises video and audio information.
- 22. (Currently Amended) A method for an interactive program guide (IPG) having a realtime video portion and a non-realtime guide graphics portion, comprising:

encoding the realtime video portion by dividing the video portion into slices and encoding each video portion slice;



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encoding the non-realtime guide graphics portion to produce a plurality of encoded non-realtime graphics slices by dividing the <u>non-realtime</u> guide graphics portion into slices and encoding each <u>non-realtime</u> guide graphics portion slice;

assigning packet identifiers to the realtime video portion slices and the non-realtime guide graphics portion slices, wherein said assigning step assigns a different packet identifier to each guide graphics slice that is part of a different guide graphic, and assigns a common packet identifier to all [the] common realtime video portion slices;

combining encoded realtime video portion slices with encoded non-realtime guide graphics portion slices, wherein the encoded realtime video portion slices and non-realtime guide graphics portion slices are combined in a predetermined order;

repacketizing the combined encoded realtime video portion slices and the encoded non-realtime guide graphics portion slices into transport packets;

re-timestamping the transport packets with new timestamps in order to synchronize the realtime video portion and non-realtime guide graphics portion of the IPG; and

placing the encoded realtime video portion slices and non-realtime guide graphics portion slices into a bitstream for transmission.

# Allowable Subject Matter

3. Claims 1-11, 13-18, 21-22 are allowed.



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# **Drawings**

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- 4. The application having been allowed, new corrected drawings are required in this application because the margins, lines in the drawings are improper. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.
- 5. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record fails to show or fairly suggest an apparatus for encoding realtime and non-realtime interactive program guide content as set forth in the claim where the means for assigning packet identifiers to the realtime video portion slices and the non-realtime guide graphics portion slices, wherein said assigning step assigns a different packet identifier to each guide graphics slice that is part of a different guide graphic, and assigns a common packet identifier to all common realtime video portion slices. The closest prior art, US Patent 5,619,337 to Naimpally shows (figure 3) substantially the same arrangement but lacks the specific elements of lines 8-12, 16-22 of claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shen et al. (US 5,956,088) teaches method and apparatus for modifying encoded digital video for improved channel utilization.

Yurt et al. (US 5,550,863) teaches audio and video transmission and receiving system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son P. Huynh July 2, 2004

VIVEK SRIVASTAVA PRIMARY EXAMINER